PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:	Simon et al.	Confirmation No.:	7382
Appl No.:	10/076,029	Group Art Unit:	3623
Filed:	February 12, 2002	Examiner:	Susanna M. Diaz
For:	SYSTEMS AND METHODS FOR SCHEDULING RE-OCCURRING DELIVERIES AND PICKUPS		

Commissioner for Patents
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RESPONSE TO REQUIREMENT FOR INFORMATION UNDER 37 CFR §1.105

This is in response to the Office communication dated May 15, 2003, in which the Examiner requested information under 37 CFR §1.105.

As requested by the Examiner, copies of the "User's Guide to Roadnet 5000, Routing and Scheduling System, Version 5.6" (Roadnet Technologies, Inc. 1996), and "Roadnet 5000, Operations Guide, Version 6.02" (Roadnet Technologies, Inc. 1997) are enclosed for the Examiner's reference as Appendices A and B, respectively. These documents were incorporated by reference into the current assignee's U.S. patent application serial number 09/811,375, which was filed on March 16, 2001.

The "bucket method" is described in detail in paragraphs 7-10 of the current assignee's U.S. patent application serial number 09/811,375, which was filed on March 16, 2001. These paragraphs are reproduced below for the Examiner's convenience:

[0007] Improved versions of traditional routing and scheduling software allow customers to schedule deliveries in real time within relatively narrow time windows. Such software uses a "bucket method" to schedule the deliveries. When configuring this software, a distributor specifies a pre-determined number of deliveries that may be scheduled for each of several delivery time windows on a particular day. As a result, each particular time window is made available to customers until all of the deliveries scheduled for that particular time window have been reserved by customers. The time window is then "closed" to further deliveries.

[0008] Thus, for example, a distributor might specify that five deliveries within a designated area may be scheduled for a 8:00 am-9:00 am, March 31 time window, and that a single truck will be used to make all of these deliveries. In this example, this delivery time window would be made available to all customers until five deliveries had been scheduled to be made within the time window. After five deliveries had been scheduled to be made within the time window, the program would indicate to subsequent customers that the time window was "closed" and, therefore, unavailable.

[0009] Such software is advantageous in that it allows customers to schedule deliveries in real time, and within relatively narrow time windows. However, such software does not promote cost-efficient delivery scheduling. For example, in the above example, if the first four deliveries to be made within the 8:00 am-9:00 am, March 31 time window were scheduled to be made within a half mile of each other, and if the fifth delivery were scheduled to be made 15 miles away from any of the first four deliveries, the distributor might actually lose money making the fifth delivery. This is because the cost associated with driving fifteen miles out of the way to make the fifth delivery might be greater than the profit made from the delivery.

[0010] Furthermore, there might be situations in which a bucket-type delivery scheduling system would not be able to complete all of the deliveries requested for a particular time window. For example, in the example above, if each of the five deliveries that were scheduled to be made within the 8:00 am-9:00 am, March 31 time window were scheduled to be made to locations that were 15 minutes apart from each of the other delivery locations, the travel time between the 5 different destinations would be 75 minutes. Thus, it would be impossible for a single driver to complete all of the deliveries between 8:00 am and 9:00 am, as promised.

Applicants note that there are many differences between: (1) the Roadnet 5000 system and systems using the "bucket method"; and (2) the claimed invention. For example, one embodiment

of the invention includes a computer-readable medium for scheduling delivery vehicle visits to a customer, the computer-readable medium comprising computer-executable instructions for performing the steps of: (1) receiving a single request from a user that a first delivery vehicle visit be made to the customer within a particular time window on a first day, and that a second vehicle delivery visit be made to the customer within the particular time window on a second day; (2) determining whether to schedule the first delivery vehicle visit within the particular time window on the first day; (3) determining whether to schedule the second delivery vehicle visit within the particular time window on the second day; (4) in response to a combination of: (a) the request, and (b) a determination in Step (2) that the first delivery vehicle visit should be scheduled within the particular time window on the first day, scheduling the first delivery vehicle visit to be made within the particular time window on the first day; and (5) in response to a combination of: (a) the request, and (b) a determination in Step (3) that the second delivery vehicle visit should be scheduled within the particular time window on the second day, scheduling the second delivery vehicle visit to be made within the particular time window on the second day.

Furthermore, another embodiment of the invention includes a computer-readable medium for scheduling delivery vehicle visits by a delivery service to a customer, the computer-readable medium comprising computer-executable instructions for performing the steps of: (1) identifying a time window in which it would be possible for the delivery service to make a delivery vehicle visit to the customer on a particular day; (2) allowing a user to request that the delivery service make a first delivery vehicle visit to the customer within the time window on the particular day; (3) allowing the user to specify that the user wishes to schedule a periodic series of delivery vehicle visits that includes the first delivery vehicle visit and one or more additional delivery vehicle visits, each delivery vehicle visit within the periodic series to be made on a different day, but within the particular time window; (4) allowing the user to specify a schedule for the periodic series of delivery vehicle visits; (5) scheduling the first delivery vehicle visit; (6) using a first set of scheduling information to determine whether the delivery service can make each of the additional requested delivery vehicle visits; and (7) in response to determining that, based on the first set of scheduling information, the delivery service can make each of the additional requested delivery vehicle visits, tentatively scheduling each of the additional requested delivery vehicle visits.

Furthermore, another embodiment of the invention includes a method of scheduling delivery vehicle visits to a customer, the method comprising the steps of: (1) receiving a single request from a user that a first delivery vehicle visit be made to the customer within a particular time window on a first day, and that a second vehicle delivery visit be made to the customer within the particular time window on a second day; (2) determining whether to schedule the first delivery vehicle visit within the particular time window on the first day; (3) determining whether to schedule the second delivery vehicle visit within the particular time window on the second day; (4) in response to a combination of: (a) the request, and (b) a determination in Step (2) that the first delivery vehicle visit should be scheduled within the particular time window on the first day, scheduling the first delivery vehicle visit to be made within the particular time window on the first day; and (5) in response to a combination of: (a) the request, and (b) a determination in Step (3) that the second delivery vehicle visit should be scheduled within the particular time window on the second day, scheduling the second delivery vehicle visit to be made within the particular time window on the second day.

In addition, another embodiment of the invention comprises a computer-readable medium for scheduling customer visits to a customer, the computer-readable medium comprising computer-executable instructions for performing the steps of: (1) identifying a time window in which it would be possible to make a customer visit to the customer on a particular day; (2) allowing a user to request that the customer visit be made to the customer within the time window on the particular day; (3) allowing the user to specify that the user wishes to schedule a periodic series of customer visits that includes the first customer visit and one or more additional customer visits, each customer visit within the periodic series to be made on a different day, but within the particular time window; (4) allowing the user to specify a schedule for the series of customer visits; (5) scheduling the first customer visit; (6) using a first set of scheduling information to determine whether the delivery service can make each of the additional requested customer visits; and (7) in response to determining that, based on the first set of scheduling information, the delivery service can make each of the additional requested customer visits, tentatively scheduling each of the additional requested customer visits.

Other differences between the claimed invention, and the Roadnet 5000 system and "bucket method" systems are set forth in the application's various claims.

Applicants note that the term "Roadnet" is used in conjunction with many of the products offered by UPS Logistics Technologies. Such products include, for example, Roadnet 5000 (which is described in the documents referenced above), eRoadnet, and the Roadnet Transportation Suite. The Examiner's attention is directed to the www.roadnet.com web site for further information regarding these products. A copy of the "products" page of this web site is attached for the Examiner's convenience as Appendix C. Applicants have also included several documents regarding the eRoadnet product in Appendix D.

Applicants note that there are many differences between the eRoadnet product and the claimed invention. For example, one embodiment of the invention includes a computer-readable medium for scheduling delivery vehicle visits to a customer, the computer-readable medium comprising computer-executable instructions for performing the steps of: (1) receiving a single request from a user that a first delivery vehicle visit be made to the customer within a particular time window on a first day, and that a second vehicle delivery visit be made to the customer within the particular time window on a second day; (2) determining whether to schedule the first delivery vehicle visit within the particular time window on the first day; (3) determining whether to schedule the second delivery vehicle visit within the particular time window on the second day; (4) in response to a combination of: (a) the request, and (b) a determination in Step (2) that the first delivery vehicle visit should be scheduled within the particular time window on the first day, scheduling the first delivery vehicle visit to be made within the particular time window on the first day; and (5) in response to a combination of: (a) the request, and (b) a determination in Step (3) that the second delivery vehicle visit should be scheduled within the particular time window on the second day, scheduling the second delivery vehicle visit to be made within the particular time window on the second day.

Furthermore, another embodiment of the invention includes a computer-readable medium for scheduling delivery vehicle visits by a delivery service to a customer, the computer-readable medium comprising computer-executable instructions for performing the steps of: (1) identifying a time window in which it would be possible for the delivery service to make a delivery vehicle visit to the customer on a particular day; (2) allowing a user to request that the delivery service make a first delivery vehicle visit to the customer within the time window on the particular day; (3) allowing the user to specify that the user wishes to schedule a periodic series of delivery vehicle

visits that includes the first delivery vehicle visit and one or more additional delivery vehicle visits, each delivery vehicle visit within the periodic series to be made on a different day, but within the particular time window; (4) allowing the user to specify a schedule for the periodic series of delivery vehicle visits; (5) scheduling the first delivery vehicle visit; (6) using a first set of scheduling information to determine whether the delivery service can make each of the additional requested delivery vehicle visits; and (7) in response to determining that, based on the first set of scheduling information, the delivery service can make each of the additional requested delivery vehicle visits, tentatively scheduling each of the additional requested delivery vehicle visits.

Furthermore, another embodiment of the invention includes a method of scheduling delivery vehicle visits to a customer, the method comprising the steps of: (1) receiving a single request from a user that a first delivery vehicle visit be made to the customer within a particular time window on a first day, and that a second vehicle delivery visit be made to the customer within the particular time window on a second day; (2) determining whether to schedule the first delivery vehicle visit within the particular time window on the first day; (3) determining whether to schedule the second delivery vehicle visit within the particular time window on the second day; (4) in response to a combination of: (a) the request, and (b) a determination in Step (2) that the first delivery vehicle visit should be scheduled within the particular time window on the first day, scheduling the first delivery vehicle visit to be made within the particular time window on the first day; and (5) in response to a combination of: (a) the request, and (b) a determination in Step (3) that the second delivery vehicle visit should be scheduled within the particular time window on the second day, scheduling the second delivery vehicle visit to be made within the particular time window on the second day.

In addition, another embodiment of the invention comprises a computer-readable medium for scheduling customer visits to a customer, the computer-readable medium comprising computer-executable instructions for performing the steps of: (1) identifying a time window in which it would be possible to make a customer visit to the customer on a particular day; (2) allowing a user to request that the customer visit be made to the customer within the time window on the particular day; (3) allowing the user to specify that the user wishes to schedule a periodic series of customer visits that includes the first customer visit and one or more additional customer visits, each customer visit within the periodic series to be made on a different day, but within the particular time

window; (4) allowing the user to specify a schedule for the series of customer visits; (5) scheduling the first customer visit; (6) using a first set of scheduling information to determine whether the delivery service can make each of the additional requested customer visits; and (7) in response to determining that, based on the first set of scheduling information, the delivery service can make each of the additional requested customer visits, tentatively scheduling each of the additional requested customer visits.

Other differences between the claimed invention, and the eRoadnet system and "bucket method" systems are set forth in the application's various claims.

Applicants note that by submitting the enclosed documents, Applicants in no way make any admission as to the prior art status of the listed documents, but are instead submitting the documents for the sake of full disclosure.

Should the Examiner have further questions or comments with respect to this requirement for information, it is respectfully requested that the Examiner telephone the undersigned at (404) 881-7728 so that further examination of this application can be expedited.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 15, 2003

Barbara Yates